

DESTINATION SPACE

BY STEPHANIE WARREN

DARKEST PLANET

Through the windshield of your spaceship, you see a yellow sun. It looks a lot like Earth's sun, but it isn't—you're 650 light-years (a light-year is the distance light travels in one year) away from Earth. You're searching for a strange planet called TrES-2b that circles this sun. It's the darkest planet ever discovered.

When you swing around the sun—there it is! The side of TrES-2b facing the yellow sun glows bright red because of the heat from the sun, much like the look of coal in a fire. The other side is almost invisible.

You fly down to get a closer look. You see that the planet doesn't have a surface; it's a glowing ball of gas. TrES-2b is so dark because of what this gas is made of. The gas contains substances that do strange things to light. One of them, titanium oxide, is a lot like what's in sunscreen, except it absorbs light instead of reflecting it. These substances swallow 99.9 percent of all the light that hits them. This makes the planet darker than the blackest paint.

Your spaceship dives into the planet's gassy surface. The planet's superhot sun is heating up the gases around you, making them glow red as they surround your craft. You turn and look back up where you came from. You can't see the sun at all. The planet's gas atmosphere has gobbled up all its light.

Destination

TrES-2b

Location

The constellation Draco

Distance

650 light-years from Earth

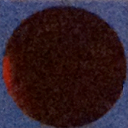
Time to reach

17.5 million years

Weather

1800°F with 2,000-mile-an-hour winds

**DARKEST
PLANET
EVER
FOUND**



PLANET TrES-2b

TrES-2b is so hot because it's only **3 million miles** from its sun. That sounds like a lot, but Earth is **93 million miles** away from its sun.

The center of TrES-2b is so hot that it **glows whitish-blue**, like the hottest part of a flame.

**EYE
ON THE
SKY**

On February 14, watch for a full moon, which happens when the moon, Earth, and sun line up so that the sun lights up the entire surface of the moon facing Earth. Early Native Americans called this moon the snow moon, because it was usually in the sky when the heaviest snows were falling.